



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0584; Product Identifier 2020-NM-069-AD]

RIN 2120-AA64

Airworthiness Directives; Embraer S.A. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain Embraer S.A. Model EMB-550 and EMB-545 airplanes. This proposed AD was prompted by reports of cracks, delamination, and failure of the flight deck side windows during certification fatigue tests. This proposed AD would require repetitive inspections of the flight deck side windows for any cracking or delamination, corrective action if necessary, and eventual replacement of the windows, as specified in an Agência Nacional de Aviação Civil (ANAC) AD, which will be incorporated by reference. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For material incorporated by reference (IBR) in this AD, contact National Civil Aviation Agency, Aeronautical Products Certification Branch (GGCP), Rua Laurent Martins, nº 209, Jardim Esplanada, CEP 12242-431 – São José dos Campos - SP, Brazil; telephone 55 (12) 3203-6600; email pac@anac.gov.br; Internet www.anac.gov.br/en/.

You may find this IBR material on the ANAC website at

<https://sistemas.anac.gov.br/certificacao/DA/DAE.asp>. For service information identified in this final rule, contact Embraer S.A., Technical Publications Section (PC 560),

Rodovia Presidente Dutra, km 134, 12247-004 Distrito Eugênio de Melo - São José dos Campos - SP – Brazil; telephone +55 12 3927-0386; email distrib@embraer.com.br;

Internet <https://www.mytechcare.embraer.com>. You may view this IBR material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available in the AD docket on the Internet at

<https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0584.

Examining the AD Docket

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0584; or in person at Docket

Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Kathleen Arrigotti, Aerospace Engineer, Large Aircraft Section, International Validation Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3218; Kathleen.Arrigotti@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2020-0584; Product Identifier 2020-NM-069-AD” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this NPRM based on those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments the FAA receives, without change, to <https://www.regulations.gov>, including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact the FAA receives about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to the person identified in the FOR FURTHER INFORMATION CONTACT section. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Discussion

The ANAC, which is the aviation authority for Brazil, has issued Brazilian AD 2020-04-01R01, effective May 22, 2020 (“Brazilian AD 2020-04-01R01”) (also referred to as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Embraer S.A. Model EMB-550 and EMB-545 airplanes.

This proposed AD was prompted by reports of cracks, delamination, and failure of the flight deck side windows during certification fatigue tests. The FAA is proposing this AD to address such cracks and delamination, which could cause the flight deck side windows to fail and lead to an in-flight depressurization event. See the MCAI for additional background information.

Related IBR Material under 1 CFR Part 51

Brazilian AD 2020-04-01R01 describes procedures for repetitive detailed inspections of the flight deck side windows for any cracking or delamination, and replacement of the windows. This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination and Requirements of this Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, the FAA has been notified of the unsafe condition described in the MCAI referenced above. The FAA is proposing this AD because the FAA evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in Brazilian AD 2020-04-01R01 described previously, as incorporated by reference, except for any differences identified as exceptions in the regulatory text of this AD.

Explanation of Required Compliance Information

In the FAA's ongoing efforts to improve the efficiency of the AD process, the FAA initially worked with Airbus and EASA to develop a process to use certain EASA ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has since coordinated with other manufacturers and

civil aviation authorities (CAAs) to use this process. As a result, Brazilian AD 2020-04-01R01 will be incorporated by reference in the FAA final rule. This proposed AD would, therefore, require compliance with Brazilian AD 2020-04-01R01 in its entirety, through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD. Service information specified in Brazilian AD 2020-04-01R01 that is required for compliance with Brazilian AD 2020-04-01R01 will be available on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0584 after the FAA final rule is published.

Costs of Compliance

The FAA estimates that this proposed AD affects 49 airplanes of U.S. registry.

The FAA estimates the following costs to comply with this proposed AD:

Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
10 work-hour X \$85 per hour = \$850	\$0	\$850	\$41,650

The FAA estimates the following costs to do any necessary on-condition action that would be required based on the results of any required actions. The FAA has no way of determining the number of aircraft that might need this on-condition action:

Estimated costs of on-condition actions

Labor cost	Parts cost	Cost per product
9 work-hours X \$85 per hour = \$765	\$9,280 per window	\$10,045

According to the manufacturer, some or all of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. The

FAA does not control warranty coverage for affected individuals. As a result, the FAA has included all known costs in our cost estimate.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and

(3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Embraer S.A.: Docket No. FAA-2020-0584; Product Identifier 2020-NM-069-AD.

(a) Comments Due Date

The FAA must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Embraer S.A. Model EMB-550 and EMB-545 airplanes, certificated in any category, as identified in Agência Nacional de Aviação Civil (ANAC) AD 2020-04-01R01, effective May 22, 2020 (“Brazilian AD 2020-04-01R01”).

(d) Subject

Air Transport Association (ATA) of America Code 56, Windows.

(e) Reason

This AD was prompted by reports of cracks, delamination, and failure of the flight deck side windows during certification fatigue tests. The FAA is issuing this AD to address such cracks and delamination, which could cause the flight deck side windows to fail and lead to an in-flight depressurization event.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, Brazilian AD 2020-04-01R01.

(h) Exceptions and Clarifications to Brazilian AD 2020-04-01R01

(1) Where Brazilian AD 2020-04-01R01 refers to its effective date, or “17 April, 2020, the effective date of the original issue of this AD,” this AD requires using the effective date of this AD.

(2) Where Brazilian AD 2020-04-01R01 refers to the compliance time of the repetitive inspections, “at each 750 Flight Hours (FH),” this AD requires a compliance time of, “at intervals not to exceed 750 flight hours.”

(3) Where Brazilian AD 2020-04-01R01 refers to, “in case of no crack, delamination or any other damage which do not allow to properly perform the required inspection by this AD, no action is required at this time,” this AD requires that in the case

of no crack or delamination that no further action is required until the next inspection interval.

(4) Where Brazilian AD 2020-04-01R01 refers to the compliance time for the replacement of the flight deck side windows as, “before the airplane logs 3,400 Flight Cycles Since New (FCSN),” this AD requires a compliance time of “before the airplane logs 3,400 FCSN, or within 50 flight cycles, whichever occurs later.”

(5) Replacement of the flight deck side windows as specified in paragraph (c)(1) of Brazilian AD 2020-04-01R01 terminates the repetitive inspections for the flight deck side windows specified in paragraph (b)(2) of Brazilian AD 2020-04-01R01.

(6) The “Alternative method of compliance (AMOC)” section of Brazilian AD 2020-04-01R01 does not apply to this AD.

(i) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, Large Aircraft Section, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the Large Aircraft Section, International Validation Branch, send it to the attention of the person identified in paragraph (j)(2) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) *Contacting the Manufacturer:* For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, Large Aircraft Section, International Validation Branch, FAA; or ANAC; or ANAC's authorized Designee. If approved by the ANAC Designee, the approval must include the Designee's authorized signature.

(j) Related Information

(1) For information about Brazilian AD 2020-04-01R01, contact National Civil Aviation Agency, Aeronautical Products Certification Branch (GGCP), Rua Laurent Martins, nº 209, Jardim Esplanada, CEP 12242-431 – São José dos Campos - SP, Brazil; telephone 55 (12) 3203-6600; email pac@anac.gov.br; Internet www.anac.gov.br/en/. You may find this Brazilian AD on the ANAC website at <https://sistemas.anac.gov.br/certificacao/DA/DAE.asp>. You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. This material may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0584.

(2) For more information about this AD, contact Kathleen Arrigotti, Aerospace Engineer, Large Aircraft Section, International Validation Branch, FAA, 2200 South

216th St., Des Moines, WA 98198; telephone and fax 206-231-3218;

Kathleen.Arrigotti@faa.gov.

Issued on July 9, 2020.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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